A.1.3

84891

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V

IN THE MATTER OF:)
QUANEX CORPORATION,)
MICHIGAN SEAMLESS)
TUBE DIVISION)
400 McMUNN STREET)
SOUTH LYON, MICHIGAN)

Docket No. VW 84 RO 23

ANSWER AND REQUEST FOR PUBLIC HEARING

DYKEMA, GOSSETT, SPENCER,
GOODNOW & TRIGG
David L. Tripp
James G. Fausone
Attorneys for Quanex Corp.
35th Floor
400 Renaissance Center
Detroit, Michigan 48243

ANSWER

Quanex Corporation, Michigan Seamless Tube Division ("Quanex") received the Complaint, Findings of Violation and Order in this matter on April 2, 1984. The Complaint alleges Quanex is in violation of 42 USC Section 6924 and regulations promulgated thereunder specifically 40 CFR 265.90(a), 265.91(a), 265.91(c), 265.92, 265.93(a), 265.93(b) and 265.94(a).

Quanex denies that it is currently in violation of these regulations and requests a public hearing pursuant to 42 USC Section 6928(b) and a pre-hearing conference.

FINDINGS AND DETERMINATIONS

1. Quanex admits the factual allegations made in Paragraph 1 of the Complaint.

2. Quanex denies the waste in question has a pH less than or equal to 2 but admits the pH of the waste is approximately 7. Quanex admits the remaining factual allegations made in Paragraph 2 of the Complaint.

3. Paragraph 3 of the Complaint consists of statements and conclusions of law which Quanex denies to the extent said statements or conclusions are contrary to applicable law.

4. Paragraph 4 of the Complaint contains legal conclusions which Quanex denies to the extent they are contrary to the law. Quanex admits the factual allegations contained in Paragraph 4 of the Complaint.

5. Quanex admits the factual allegations contained in Paragraph 5 of the Complaint.

6. Paragraph 6 of the Complaint contains legal conclusions which Quanex denies to the extent they are contrary to the law. Quanex admits no ground water monitoring program was in place on September 17, 1982 or September 14, 1983.

7. Paragraph 7 of the Complaint contains legal conclusions which Quanex denies to the extent they are contrary to the law.

8. Quanex admits the factual allegations contained in Paragraph 8 of the Complaint.

9. Quanex admits the continued operation of the facility is in the public interest.

DEFENSE STATEMENT OF FACTS

1. In September, 1982, Quanex informed U.S. EPA Region V that ground water monitoring data had not been submitted under its interim Part A permit regarding surface

impoundment and land application storage since the company was petitioning for delisting under Parts 40 CFR 261.3(c) and (d)2. See Exhibit A attached.

2. The petition to delist the spent pickle liquor and sludge from steel finishing was filed November 19, 1982.

3. The petition to delist stated, inter alia, "In summary, it has been shown that this sludge does not meet the criteria for which it has been listed as a hazardous waste material and, therefore, it should be delisted." See Exhibit B attached.

4. In November, 1982, the plant personnel and the consulting engineers expected EPA to promptly act on the petition and delist the waste in question.

5. Quanex recently learned that its petition to delist has been grouped with other similar petitions. The main petition is from the American Iron and Steel Industry to delist waste KO 63, lime neutralized pickle liquor from iron and steel processing.

6. Conversations with Mr. William Spread and Ms. Jackie Sales of U.S. EPA have lead Quanex to believe the group of delisting petitions are expected to be approved in late May, 1984.

7. At the time of filing in November, 1982, Quanex never expected a year and one-half delay in U.S. EPA approval of the delisting petition.

8. In July, 1983, Quanex was advised it lacked interim status under Section 3005 of RCRA because a timely Notification of Hazardous Waste Activity had not been filed with EPA.

9. In a good faith effort to cooperate with U.S. EPA, Quanex signed a Consent Agreement and Final Order dated July 22, 1983. See Exhibit C attached. No penalties were assessed as a result of Quanex's then existing noncompliance.

10. As a result of the July, 1983 Order, Quanex engaged Environmental Research Group, Inc. to conduct a hydrogeologic program, to quarterly sample and test groundwater, to prepare and deliver quarterly and annual reports and to assist in maintenance of records.

11. The first quarter groundwater quality results were forwarded to William H. Miner, Chief-Technical, Permits and Compliance Section, U.S. EPA, Region V, on February 10, 1984.

12. Quanex submits the program currently in place under the direction of Environmental Research Group, Inc. and as outlined to Mr. Miner, complies with applicable regulations;

and, therefore, Quanex is not currently in violation as indicated in the Complaint.

13. Quanex submits that it is not in violation of 40 CFR 265.93(b) and 265.94(a) as those provisions require reports after a year of data has been accumulated which data is not currently available. The required annual reports will be issued in late 1984.

14. At hearing, Quanex shall establish that the groundwater monitoring indicates that no pollution of the groundwater from the facility has occurred. During the period of noncompliance, no environmental harm or endangerment of public health, safety or welfare existed.

15. Quanex contends the amount of the penalty proposed is inappropriate in this case and that this Complaint for past noncompliance is inappropriate.

ORDER AND CONDITIONS
FOR CONTINUED OPERATION

Quanex reserves the right to contest the terms of the proposed Compliance Order at the conclusion of the public hearing.

ASSESSMENT OF PENALTY

Quanex contends the penalty of Seventeen Thousand Six Hundred Dollars ($17,600.0)) is excessive. Quanex respectfully

challenges the EPA's analysis of the seriousness of the violations cited in the Complaint, the potential harm to human health and the environment and the conduct of the Respondent.

NOTICE OF OPPORTUNITY FOR HEARING

Quanex requests a public hearing to contest material factual allegations and the appropriateness of the assessed penalty and Compliance Order.

DYKEMA, GOSSETT, SPENCER, GOODNOW & TRIGG

By: David L. Tripp
David L. Tripp

And: James G. Fausone
James G. Fausone
Attorneys for Quanex Corporation
35th Floor - 400 Renaissance Center
Detroit, Michigan 48243
(313) 568-6800

Quanex Corporation
400 McMunn
South Lyon, Michigan 48178
(313) 437-1715

Quanex

September 24, 1982

R.C.R.A. Activities
Groundwater Monitoring
USEPA Region V
P.O. Box A3587
Chicago, Illinois 60690

Reference: E.P.A. MID082767591
Groundwater Monitoring

Gentlemen:

In response to a call from Mr. Joe Boyle, Region V, U.S.E.P.A. Friday September 24, 1982, as to why your office has not received data on groundwater monitoring under our Interim Part A permit (MID082767591) regarding Surface Impoundment (S04) and Land Application Storage (D81) we submit the following.

We are petitioning E.P.A. Washington D.C. for delisting under Parts C.F.R. 40, 261.3(c) and (d)2 that the questioned areas were tested and found to be below E.P. toxic levels, including cyanide and, therefore, do not require groundwater monitoring. These areas are neutralized spent pickle liquor and sludge from steel finishing (old K063).

We will keep your office informed of our progress with Washington. If there is any further information you may require, please let me know.

Sincerely,

QUANEX CORPORATION
Michigan Seamless Tube Division

M. P. Robinson
Environmental Engineer

PR:kb

EXHIBIT A

Quanex Corporation
400 McMunn
South Lyon, Michigan 48178
(313) 437-1715

Quanex

November 19, 1982

Ms. Anne M. Gorsuch, Administrator
U.S. Environmental Protection Agency
401 M. Street, S.W.
Washington, D.C. 20460

Re: Petition to Delist Sludge From Steel Finishing Operations

Facility: Quanex Corporation
Michigan Seamless Tube Division
400 McMunn
South Lyon, Michigan 48178

EPA I.D. No. MID 082767591

Dear Ms. Gorsuch,

A petition is hereby submitted to exclude from listing as a hazardous waste material the sludge generated at our waste treatment facility currently identified as a code KO 63 waste material.

Information required for this petition as set forth in 40 CFR Part 260, Subpart C, is contained in the attached report. This petition is requested on the basis that the constituents of concern analyzed for in the EP leachate are at concentrations well below established EP Toxicity limits.

Furthermore, several years of monitoring data obtained under the NPDES permit system have demonstrated our continued ability to meet water quality standards as set forth in our permit for the effluent associated with this treated waste material. The analytical data contained in this petition is as obtained from the analysis of representative core samples of sludge collected from our lagoons and drying beds. In the event that significant changes were to occur in production or treatment operations, we would, as required by law, retest the material for hazardous characteristics.

The required certification statement is also enclosed.

EXHIBIT B

If any questions arise or more information is required, please contact Mel Robinson at (313) 437-1715.

We appreciate your prompt review and consideration of this petition.

Sincerely,

QUANEX CORPORATION
Michigan Seamless Tube Division

R. E. Russell
General Manager

RER:kb
Enc.

HYDRO RESEARCH SERVICES
Water Management Division
Clow Corporation

QUANEX CORPORATION

MICHIGAN SEAMLESS TUBE DIVISION

400 MCMUNN

SOUTH LYON, MICHIGAN 48178

Report for Petition to Delist Sludge

From Steel Finishing Operations

November 1982

Introduction

The Michigan Seamless Tube Division of Quanex Corporation, located in South Lyon, Michigan, is involved in the manufacture of seamless steel tubing for various industries.

Processes at this plant include acid pickling, phosphate coating, alkaline cleaning, washing, annealing, and rust inhibitor coating operations (see Figure 1).

Influents to the waste treatment facility consist of boiler blowdown, non-contact cooling waters, spent pickling waste, and rinse waters.

Waste treatment process are as follows: The influent pH to the waste treatment facility is continuously monitored and is automatically adjusted to between pH 9.5-10 by addition of a lime slurry to the acid solution. The mixture is then agitated with compressed air to keep the solids in suspension and promote oxidation of ferric iron. The treated materials are then pumped to settling lagoons (see Figure 2).

The solids settle out and the lagoon overflow is discharged to the Yerkes Drain within water quality limits as specified by NPDES Permit No. MI-000-1902.

The sludge is periodically (usually on an annual basis) pumped to the drying beds where it is eventually bulldozed up onto the dikes and later landfilled. Estimated annual sludge production is 2,450 cubic yards.

The waste requested for delisting is the treated sludge contained in the lagoons and drying beds and currently designated as a KO 63 waste.

Past disposal facilities: (1981)

Holloway Landfill
10930 W. 6 Mile Road
Northville, MI 48167

Introduction(continued)

Estimated quantities in storage:

Drying Beds: 40,000 cubic yards
Lagoons: 900 cubic yards

Once delisted, this waste will be periodically hauled from Quanex's property and sent to a suitable disposal facility such as:

Wayne Disposal, Inc.
P.O. Box 5187
Dearborn, MI 48128
MID #048090633

Pickle House Operations - Figure 1

(Typical)

1.) Alkaline Cleaner (4545 gal.)

2.) Alkaline CY Cleaner (Contains rust inhib.) (4545 gal.)

3.) Phosphate Coating -Bonderite (3940 gal.)

4.) Hot Water Rinse (3940 gal.)

5.) Lubricant -Sodium Stearate (3940 gal.)

6.) Dryer

7.) Sulfuric Acid (4890 gal.)

8.) Sulfuric Acid (4890 gal.)

Spare

Process Sequence for Steel Finish:

Heating/Cooling
Acid Pickle
Phosphate Coating
Hot Water Rinse
Lubricant
Cold Draw into final form
Annealing
Alkaline Cleaner
Acid Neutralization
Alkaline Cleaner CY

Figure 2

Waste Treatment Schematic and Lagoons

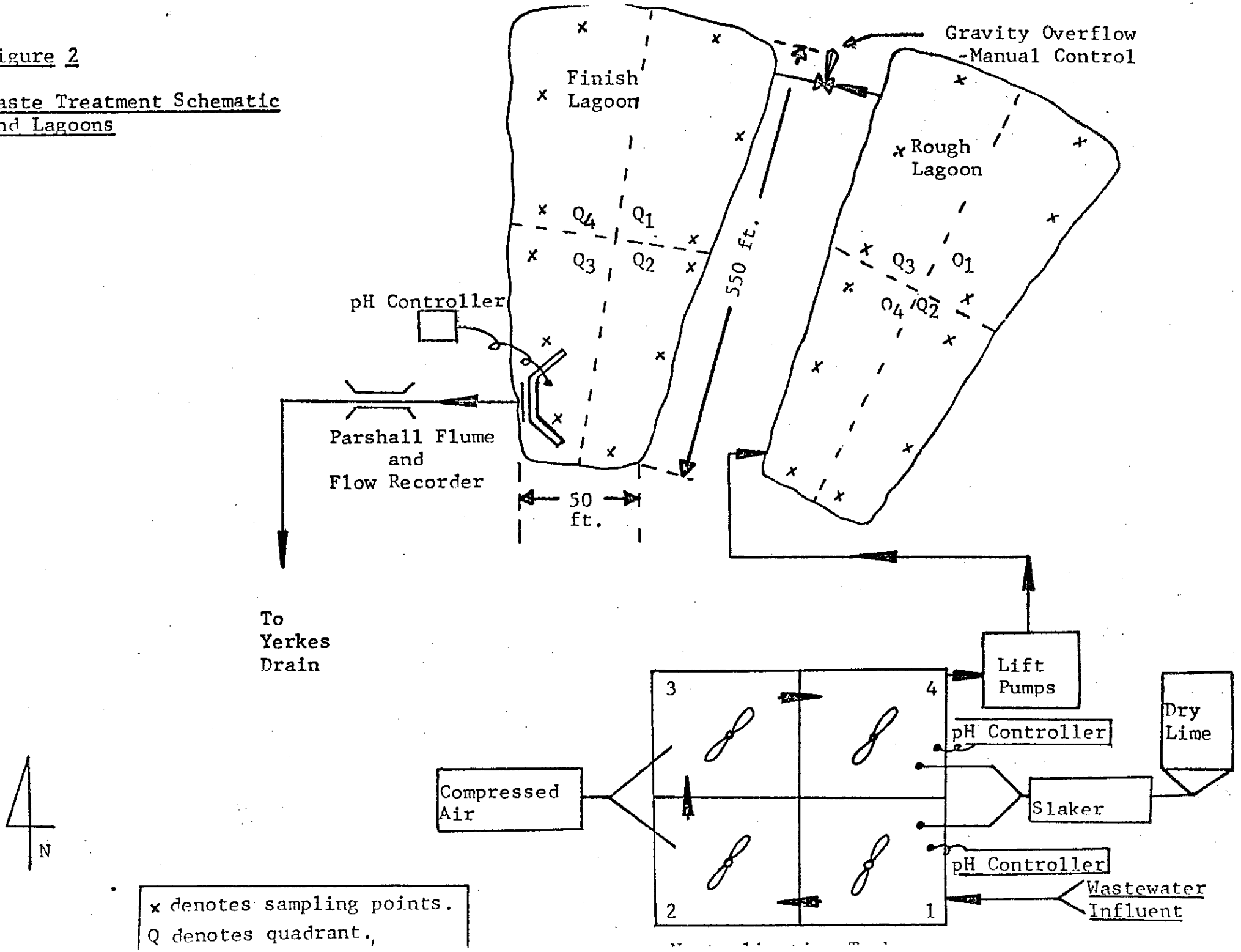
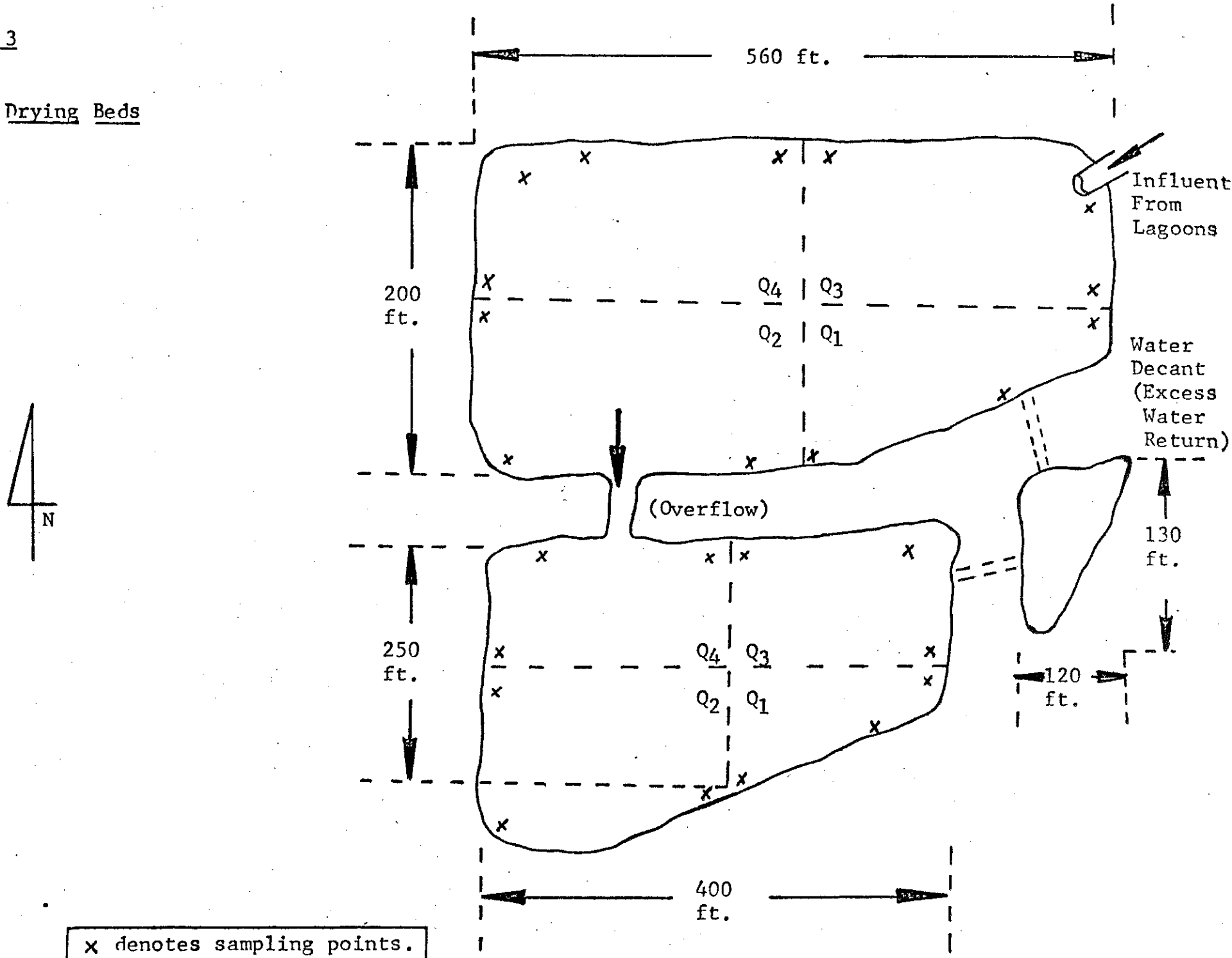


Figure 3

Sludge Drying Beds



Sampling and Analysis

Sampling and analyses were performed by Hydro Research Services. Sampling took place on October 11, 1982.

Personnel and equipment used in the collection and analyses of samples are presented in the Appendix.

Both lagoons and drying beds were divided into four quadrants each (see Figures 2 and 3). A minimum of 3 core samples were taken in each quadrant and a composite of each quadrant made in a glass jar. Samples were then transported back to the laboratory for analysis.

Samples were then logged in after delivery to the laboratory, assigned a laboratory number, mixed well, and then portioned for analysis.

"As collected" samples from each quadrant in each lagoon were then analyzed for : Total Chromium, Total Cyanide, Lead, and Nickel.

The results of these analyses are presented in Table I.

A composite of equal weights of sample from each quadrant were then made yielding a composite sample for each lagoon and drying bed. These samples were then analyzed for pH and Total Solids. (See Table I for results).

The EP Toxicity procedure was then performed on these composite sludges. The EP Toxicity leachate was analyzed for the following parameters: Arsenic, Barium, Cadmium, Chromium-Total, Copper, Lead, Mercury, Nickel, Selenium, Silver, Zinc, and Total Cyanides. Results of the above analyses are presented in Table II.

CLOW

HYDRO RESEARCH SERVICES
Water Management Division
Clow Corporation

408 Auburn Avenue
Pontiac, MI 48058

313 334-1630
313 334-4747

TO:

Results of Analyses "As Collected" Sludge Samples **Date:**

Table I

Sample Identification:	Chromium Total, mg/kg	Lead Total, mg/kg	Nickel Total, mg/kg	Cyanide Total, mg/kg	Total Solids,%	pH
West Lagoon						
Quadrant 1.	65	2.4	47	<0.5	--	--
Quadrant 2.	200	32	120	<0.5	--	--
Quadrant 3.	68	<2	52	<0.5	--	--
Quadrant 4.	73	3.6	58	<0.5	--	--
Composite	--	--	--	--	26.9	7.5
East Lagoon						
Quadrant 1.	180	4.6	81	<0.5	--	--
Quadrant 2.	160	6.2	90	<0.5	--	--
Quadrant 3.	72	<2	45	<0.5	--	--
Quadrant 4.	160	<2	72	0.6	--	--
Composite	--	--	--	--	29.7	8.0

* All results reported on samples as collected.

CLOW

HYDRO RESEARCH SERVICES
Water Management Division
Clow Corporation

408 Auburn Avenue
Pontiac, MI 48058

313 334-1630
313 334-4747

TO:

Date:

Results of Analyses "As Collected" Sludge Samples

Table I

Sample Identification:	Chromium Total, mg/kg	Lead Total, mg/kg	Nickel Total, mg/kg	Cyanide Total, mg/kg	Total Solids,%	pH
South Drying Bed						
Quadrant 1.	180	<2	110	<0.5	--	--
Quadrant 2.	220	<2	120	<0.5	--	--
Quadrant 3.	200	<2	110	<0.5	--	--
Quadrant 4.	200	4.9	99	<0.5	--	--
Composite	--	--	--	--	34.8	7.5
North Drying Bed						
Quadrant 1.	200	<2	100	<0.5	--	--
Quadrant 2.	250	<2	140	<0.5	--	--
Quadrant 3.	230	2.8	140	<0.5	--	--
Quadrant 4.	220	<2	120	<0.5	--	--
Composite	--	--	--	--	32.6	7.7

*All results reported on samples as collected.

CLOW

HYDRO RESEARCH SERVICES
Water Management Division
Clow Corporation

408 Auburn Avenue
Pontiac, MI 48058

313 334-1630
313 334-4747

Results of EP Toxicity Procedure

TO:

Table II

Date:

	West Lagoon Composite	East Lagoon Composite	North Drying Bed Composite	North Drying Bed Composite	Average
Parameters:					
Arsenic	<0.005	<0.005	<0.005	<0.005	<0.005
Barium	<0.1	<0.1	0.5	0.6	<0.33
Cadmium	0.05	0.05	0.05	0.05	0.05
Chromium, Total	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	0.008	0.005	0.06	0.05	0.06
Lead	0.25	<0.05	<0.05	<0.05	<0.05
Mercury	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Nickel	0.54	0.45	0.88	0.60	0.62
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	0.02	0.03	0.02	0.02	0.02
Zinc	0.36	0.19	0.62	0.39	0.39
Cyanide, Total	<0.02	<0.02	<0.02	<0.02	<0.02
pH Adjustment Information: Final pH	7.1	7.2	6.9	7.1	--
#mls of 0.5 N Acetic Acid added per gm. of sample	4.0	4.0	4.0	4.0	4.0

Data Analysis

A linear regression analysis was performed on the results obtained from all EP Toxicity leachate parameters analyzed for according to U.S. EPA SW-846, Section 8.49-6.

The results obtained by linear regression on the values of standard concentrations vs. observed concentrations were calculated as a line slope and reported as a percent.

All data obtained were well within specified limits, as few interferences were present.

Discussion/Summary

The results of Table I demonstrate that this sludge is fairly consistent with respect to those elements of concern analyzed for in the "as collected" waste material.

Data presented in Table II clearly show that the lime neutralization process utilized here has been effective in stabilizing this waste material even under EP Toxicity procedure conditions. Although the maximum allowable amount of acid was added during this test, the pH of the leachate did not fall below 6.9.

At no time did the concentrations of those elements of concern exceed EP Toxicity limits and, in most cases, these were below the limits of detection.

In addition, the waste water effluent associated with this waste treatment process has been discharged to local water ways for a number of years. Monitoring data obtained over the last several years under the NPDES permit system (Permit #MI0019O2) have shown an effluent consistently within permit limitations.

In summary, it has been shown that this sludge does not meet the criteria for which it has been listed as a hazardous waste material and, therefore, it should be delisted.

This delisting will enable the Michigan Seamless Tube Division to more economically dispose of this waste material when the necessity arises for dredging of our lagoons and drying beds.

Appendix I

Sampling and analysis was performed by Hydro Research Services, 408 Auburn Avenue, Pontiac, MI 48058.

I. Sampling

Collection:	Alan Hahn
Dates:	October 11, 1982
Method:	Polycarbonate coring tube.
Storage:	Glass jar.

II. Analytical Procedures

A. Sludge Samples

Metals analyzed followed Methods 8.54, 8.56 and 8.58 of Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, US EPA SW-846.

Metals analysis was performed by Cecilia Vernaci and supervised by Linda Deans, General Laboratory Manager.

Total cyanide was determined by Method 335.2, Methods for Chemical Analysis of Water and Wastes, 1979, EPA-600/4-79-020 performed by Nancy Campbell and Susan Scott; supervised by Linda Deans, General Laboratory Manager.

B. EP Methodology

The EP Toxicity was performed according to Section 7 procedures as outlined in US EPA SW-846.

All metals analyzed for were analyzed according to Methods 8.51 through 8.54, and 8.56 through 8.60 of EPA SW-846.

Copper and Zinc analysis followed Methods 220.1 and 289.1, respectively, of Methods for Chemical Analysis of Water and Wastes, 1979, EPA-600/4-79-020.

All metals analyses were performed by Cecilia Vernaci and supervised by Linda Deans, General Laboratory Manager.

Total cyanide was analyzed for according to Method 335.2, Methods for Chemical Analysis of Water and Wastes, 1979.

Appendix I Continued

The EP extraction procedure and cyanide analyses were performed by Nancy Campbell and Susan Scott; and supervised by Linda Deans, General Laboratory Manager.

C. Instrumentation

Atomic Absorption Spectrophotometer:
Instrumentation Labs Model IL-951

UV-Visible Spectrophotometer:
Bausch and Lomb Model 88

pH Meter
Corning Model 110

D. Personnel Qualifications

See Appendix II

HYDRO RESEARCH SERVICES
WATER MANAGEMENT DIVISION
CLOW CORPORATION

Hydro Research Services is part of the Water Management Division of Clow Corporation. Operating as an independent laboratory, Hydro offers complete analytical services for compliance with environmental regulations related to water quality.

Personnel

Douglas A. Schwartz

Vice President/General Manager, Clow Water Management Division. BS Physical Chemistry, University of Utah; MBA Marketing/Finance, University of Chicago. Twenty years experience in water and wastewater technology.

John Alf

Vice President/Operations. BS Chemistry, St. Mary's College; MBA University of Michigan. Fifteen years experience in industrial water treatment, laboratory management.

Linda Carey

Manager/Analytical Services. BS Food Science, Michigan State University, 1966, minors in Chemistry and Microbiology. Ten years laboratory experience in Research and Development, Quality Control. Hydro Research, seven years. Responsible for laboratory operations, marketing and sales.

Larry Frantz

Technical Director. BS Analytical Chemistry, Lawrence Institute of Technology. Minors in math and physics. Extensive background in analytical instrumentation and chromatography. Hydro Research, seven years. Responsible for organic laboratory section, general technical direction.

Linda Deans

General Laboratory Manager. BA Chemistry, Albion College, 1968. Twelve years previous chemical analytical experience including laboratory management, NUS Corporation, Pittsburg, PA. Hydro Research employee, three years. Responsible for coordination of laboratory activities, quality assurance, training.

Keith Kirchner

Manager/Customer Service. BS Biology, Wayne State University, 1976. Areas of responsibility; Customer Services, special analytical programs, method development.

Bruce E. Brown

Chemist. BS Chemistry, BS Biology, Oakland University, 1976. Past experience includes supervisor of Chemistry Department in a clinical laboratory and Emmissions Chemist with Ford Motor Company. Organic laboratory specialist; Hydro Research employee, two years.

Michael E. Kelley

Chemist. BS Chemistry, Lawrence Institute of Technology, 1977. Areas of expertise include organic separations and gas chromatography. Hydro Research employee, three years.

Susan Scott

Supervisor. Prior experience with Michigan Department of Public Health, Microbiology Department. Eight years analytical experience with Hydro Research. Chief areas of responsibility - wet and gravimetric analyses, solid waste programs, microbiology.

Cecilia Vernaci

Analyst. BS Biology, St. Mary's College, Leavenworth, KS. Industrial analytical experience, Mobay Chemical Company, three years. Hydro Research employee four years, specializing in instrumental analysis and metals chemistry.

Mary Jones

Chemist, BA Chemistry, Oakland University, 1979. Research Assistant, Chemistry Department, Oakland University previous to employment with Hydro Research. Two years experience in general laboratory analyses and instrumental techniques.

Personnel

Nancy Campbell

Analyst. BA Education, Michigan State University, 1971. MA Education, Saginaw Valley College 1975. Previous employment, science teacher, 10 years.

Alan Hahn

Field Supervisor. Associate degree, Biology, Oakland Community College. Five years experience in field sample collection and flow monitoring.

Jeff Bolin

Field Operations. BS Environmental Science, Lake Superior State College, 1980.

Shar Hopp

Sales Representative. Seven years experience with Clow Water Management Division. Responsible for sales, customer relations, and account coordination.

Nancy Kempa

Sales Representative. BS Biology, Chemistry minor, Central Michigan University.

CERTIFICATION STATEMENT

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

R. E. Russell
General Manager

*The source of the statement is 40 CFT Part 260 Subpart C Section 260.22 (i) (12)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:

22 AUG 1983

Richard E. Russell
General Manager
Ouanex, Michigan Seamless
Tube Division
400 McMunn Street
South Lyon, Michigan 48178

Re: Quanex, Michigan Seamless Tube Division
Consent Agreement and Final Order
MID 082767591
Docket No. V-W-83-R-065

Dear Mr. Russell:

This is to acknowledge receipt of the Consent Agreement and Final Order signed by you. A fully executed copy of each Consent Agreement and Final Order is enclosed for your files.

Your cooperation in resolving this matter is appreciated.

Very truly yours,

William H. Miner, Chief
Technical, Permits and Compliance Section

Enclosure

cc: Alan J. Howard
Michigan Department of Natural Resources

EXHIBIT C

ENGINEERING DEPT.

RECEIVED AUG 29 1983

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

IN THE MATTER OF: Quanex, Michigan Seamless Tube Div. 400 McMunn St. South Lyon, Michigan	)	DOCKET NO. V-W-83-R-
	)	CONSENT AGREEMENT AND FINAL ORDER
EPA ID NO. MID 082767591	)	V—W— 83 R-065

A Complaint was filed pursuant to Section 3008(a)(1) of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, (RCRA), 42 U.S.C. 6928(a)(1), and the Environmental Protection Agency's Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits, 40 CFR Part 22. The Complainant is the Director of the Waste Management Division, Region V, United States Environmental Protection Agency (hereinafter U.S. EPA). The Respondent is Quanex, Michigan Seamless Tube Div.

The parties to this action being desirous to settle this action enter into the following stipulations.

1. Respondent has been served with a copy of the Complaint with Notice of Opportunity for Hearing on this matter; and, the Regional Administrator has jurisdiction over this matter pursuant to Section 3008 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6928.

2. Respondent owns and operates an existing hazardous waste management facility as defined by 40 CFR 260.10.

3. Respondent submitted a Notification of Hazardous Waste Activity pursuant to 42 U.S.C. 6930 on October 14, 1980.

4. Respondent filed a Part A permit application with U.S. EPA for operation of a hazardous waste management facility on November 19, 1980.

5. Respondent neither admits nor denies any other allegation in the Complaint.

ORDER

Based upon the foregoing stipulations, the parties agree to the entry of the following Final Order in this matter.

A. Respondent shall, within 30 days of receipt of this Complaint, cease all treatment, storage, or disposal of any hazardous waste except such storage at the facility as shall be in complete compliance with the Standards Applicable to Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities, 40 CFR Part 265; and

B. Respondent shall fully comply with the Consolidated Permit Regulations, 40 CFR Parts 124 and 270, as if Respondent had filed a timely "Notification of Hazardous Waste Activity" pursuant to Section 3010(a); and submitted Part A of a permit application as required by those regulations.

Notwithstanding any other provision of this Order, an enforcement action could be brought pursuant to Section 7003 of RCRA or other statutory authority should the U.S. EPA find that handling, storage, treatment, transportation or disposal of solid waste or hazardous waste at the facility may present an imminent and substantial endangerment to human health or the environment.

Agreed to this 27th day of July, 1983.

Respondent Richard E. Russell

General Manager
Title

Agreed to this 5th day of August, 1983.

Basil G. Constantelos
Director, Waste Management Division
Complainant
U. S. Environmental Protection Agency
Region V

It being Agreed, it is so ORDERED this 5th day of August, 1983.

Valdas V. Adamkus
Regional Administrator
U. S. Environmental Protection Agency
Region V

A.1.8

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Ms. Joan Peck, Chief
Groundwater Section
Waste Management Division
Michigan Department of Natural Resources
P. O. Box 30241
Lansing, Michigan 48909

September 12, 1991

Dear Ms. Peck:

I am transferring the EPA's delisting file of Quanex Corporation, South Lyon, Michigan (File No. 0633) to your office as per your instruction in a letter dated July 19, 1991. Please find enclosed a copy of our file for this pending petition (including a Master List), and a Petition Fact Sheet summarizing our evaluation of Quanex's submittals. This transfer is necessary as a result of the recent delisting authorization received by the State of Michigan for wastes involving closure or partial closure of a hazardous waste management facility in lieu of the Federal delisting program, which became effective June 24, 1991 (See 56 FR 18517, April 23, 1991).

If you have further questions concerning this matter, please feel free to contact me at (202)260-7392.

Sincerely,

Chichang Chen

Chichang Chen,
Delisting Section

Enclosures

cc: Ed Abrams, EPA HQ
Bob Kayser, EPA HQ
Jim Kent, EPA HQ
Allen Debus, EPA Region V
Gordon Garcia, EPA Region V
Jim Roberts, MDNR
Jenny Utz, SAIC

Date: September 6, 1991

PETITION FACT SHEET

Petition No.: 0633A&B Region: V
Petitioner: Quanex Corporation, Michigan Seamless Tube Division
Facility Location: South Lyon, MI
RCRA ID No.: MID082767591 Other Permit No.: NPDES MI0001902
Contact/Phone No.: Donald Comfort (313) 437-8117
SAIC Reviewers: Jenny Utz/Eileen Regan, SAIC
Complete: No

PETITION (#0633A)

- Subject of petitions is K062 spent pickle liquor from steel finishing operations discharged into two on-site surface impoundments (in series).
- 325 million gallons of effluent are generated per year. Effluent is now treated in on-site plant and discharged via NPDES permit.
- Samples are representative. Ten samples were taken at the point of discharge into the first surface impoundment from 8/18/86 to 9/16/86.
- Quanex is closing the impoundments; impoundment sludge has been solidified and removed.

PETITION (#0633B)

- Subject of petition is K062 spent pickle liquor from steel finishing operations contained in two on-site surface impoundments.
- The maximum volume of effluent contained in the surface impoundments at any one time was 5.8 million gallons.
- The sludge contained in the two surface impoundments is not a listed waste (formerly K063; exempt under 40 CFR §261.3(c)(2)(ii)(A)).
- The surface impoundments allow precipitation of metal hydroxides prior to discharge to the Yerkes Drain under an NPDES permit.
- Samples collected in support of the petition are representative. Eighteen grab samples and ten composite samples were collected by Quanex and analyzed during February and November 1986. Ten grab samples were collected by EPA during an August 26, 1987 spot-check visit to Quanex.

Samples were either taken at the point of discharge into the first surface impoundment or at the overflow from the second surface impoundment.

- o No statistical abnormalities were observed in discharge sampling.

- o Ground-water monitoring information was submitted as part of the second portion of Quanex's petition (#0633B), which specifically addresses the request for an exclusion of waste contained in two on-site surface impoundments.

- o Quanex is closing the impoundments; impoundment sludge has been solidified and removed.

SUMMARY OF EPA'S REVIEW OF QUANEX'S PETITIONS (#0633A/B)

SUMMARY OF EPA'S REVIEW

Background

Quanex Corporation, located in South Lyon, Michigan, submitted a delisting petition on February 5, 1986 to exclude the liquid effluent (a mixture of sludge generated by the lime neutralization of spent pickle liquor and spent pickle liquor) discharged to and contained in two on-site surface impoundments. These wastes are listed as EPA Hazardous Waste No. K062 (Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry). Quanex stated that the maximum annual rate of effluent discharged to the surface impoundments is 325 million gallons (approximately 1.4 million cubic yards) per year and the maximum volume of effluent contained in the surface impoundments at any one time is 5.8 million gallons (approximately 24,200 cubic yards).

Quanex manufactures seamless steel tubing for various industries. The manufacturing process generates spent pickle liquor and associated rinse waters which are sent to Quanex's wastewater treatment facility where they are neutralized by the addition of a lime slurry. The lime-treated waste is discharged to the first of two surface impoundments (in series). The overflow from the second impoundment then is discharged to the Yerkes Drain under a NPDES permit.

On June 5, 1984, the sludge portion of the lime-treated waste was excluded from hazardous waste regulation in accordance with 40 CFR §261.3(c)(2)(ii)(A). Under this regulation, sludges generated by the lime stabilization of spent pickle liquor from the iron and steel industry are not hazardous unless the sludge exhibits one or more of the characteristics of a hazardous waste.

In February 1986, Quanex submitted analytical data for samples of the petitioned effluent collected using a two-phase

approach. A total of eight grab samples of the petitioned effluent were collected in Phase I (four grab samples at various stages of treatment were collected from each of two batches). In Phase II, ten composite samples, each consisting of grab samples collected every half hour, were collected over a ten-day period and a grab sample was collected every day (for ten days) at the beginning of the day to represent non-production conditions.

In November 1986, Quanex submitted additional sampling and analysis data using procedures similar to Phase II but field filtered these sampled using a 0.45 micron filter. (EPA later questioned if the filter might have removed particles which were suspended in the petitioned waste. Thus, the samples may not characterize the waste in its disposed state.)

On May 18, 1987, Quanex requested that the petition be separated into a petition for the effluent (#0633A) and for the surface impoundments (#0633B). On August 2, 1987, Quanex submitted a closure plan for its surface impoundments. The plan was approved by the State of Michigan on September 24, 1987.

EPA representatives conducted a spot-check visit to Quanex on August 26, 1987. Eight grab samples of the petitioned effluent were collected at the point where the treated wastewater is discharged to the first surface impoundment (four samples were filtered with a 6 micron filter); two samples were collected from the outfall of the second surface impoundment; and five ground-water samples, one upgradient and four downgradient, were collected.

EPA's Evaluation

On August 24, 1988, EPA sent a denial/withdrawal letter to Quanex based on: (1) levels of 1,1-dichloroethane, lead, and selenium found in ground-water samples collected by Quanex and (2) levels of trichloroethene, chromium, and lead found in ground-water samples collected during the EPA spot-check visit.

In January 1989, Quanex submitted additional information in response to the denial/withdrawal letter to the Michigan Department of Natural Resources. In this submittal Quanex provided discussions of potential sources of the constituents of concern (i.e., lead, chromium, selenium, trichloroethane, 1,1-dichloroethane) as well as an evaluation of the available ground-water monitoring data. EPA HQ received a copy of this information in June 1989 from the State.

On November 20, 1990, a notice was published in the Federal Register (55 FR 48248) proposing to deny Quanex's petition to exclude the effluent discharged to and contained in the surface impoundments from hazardous waste listing. The decision to deny was based on: (1) levels of chromium and selenium found in waste sampled by Quanex; (2) levels of chromium, bis(2-ethylhexyl)phthalate, and endrin found in waste sampled during

the spot check visit; (3) levels of 1,1-dichloroethane, methylene chloride, barium, cadmium, chromium, lead, and selenium found in ground-water samples collected by Quanex; and (4) levels of trichloroethene, chromium, and lead found in ground-water samples collected during spot-check. See 55 FR 48248 for details. Comments on the proposed notice were subsequently received from one commenter, Quanex. EPA did not finalize this proposed decision due to the recent authorization of Michigan for delisting (effective June 24, 1991).

HISTORY (#0633A & #0633B)

2/5/86 Petition received.

11/20/86 Additional sampling data provided.

5/18/87 Petition split at request of petitioner. The effluent will be the subject of #0633A; the effluent contained in the surface impoundments will be dealt with under #0633B.

8/26/87 Agency conducted a site visit to Quanex as part of a spot-check sampling and analysis program.

9/8-10/87 Ground-water monitoring data received from Michigan Department of Natural Resources.

9/14/87 Quanex letter sent protesting ERCO sampling procedure.

8/24/88 Denial/withdrawal letter sent to petitioner based on levels of 1,1-dichloroethane, lead, and selenium found in ground-water samples collected by Quanex, and levels of trichloroethene, chromium, and lead found in ground-water samples collected during spot-check visit.

6/28/89 Petitioner's response to denial letter received (from the State).

11/20/90 Proposed denial published in Federal Register (55 FR 48248).

2/5/91 Comments on the proposed denial received from Quanex.

6/24/91 Michigan received delisting authorization for wastes involving closure or partial closure of hazardous waste management facilities. **File Closed.**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 24 1988

Mr. Donald Comfort
Engineering Manager
Quanex Corporation
400 McMunn Street
South Lyon, Michigan 48178

Dear Mr. Comfort:

The Permits and State Programs Division has completed a review of your February 5, 1986 petitions (#0633A and #0633B) which request the exclusion of the liquid portion of your treatment plant effluent, classified as EPA Hazardous Waste No. K062. At your request, your original petition (#0633) was divided into two parts subsequent to its submittal. The K062 treatment plant effluent was made the subject of petition #0633A, and two surface impoundments containing the K062 treatment plant effluent were made the subjects of petition #0633B. Based on the evaluation of ground-water monitoring data received from State and EPA Regional authorities and collected during the Delisting Program's spot-check sampling visit (August 26, 1987) to your facility, we will recommend to the Assistant Administrator for Solid Waste and Emergency Response that both petitions be denied.

In order for EPA to grant an exclusion, the Agency must determine that a petitioned waste will not pose a significant threat to human health and the environment. We believe that assessing the potential for hazardous constituents to migrate from the waste into the environment is necessary to our determination. While we typically use models in this assessment, we believe ground-water monitoring data from an adequate well system provides important additional information regarding a petitioned waste's impact on the environment.

After reviewing ground-water monitoring results for wells that monitor the two surface impoundments, we determined that the wastes contained in the surface impoundments (i.e., the subject of petition #0633B) may be contributing to ground-water contamination. Specifically, ground-water samples collected from wells that monitor the surface impoundments contained

hazardous constituents at concentrations exceeding the health-based levels used in delisting decision-making[1/]. Lead, chromium, and trichloroethene were detected in EPA spot-check samples from downgradient wells at the Quanex facility, while lead, selenium, and 1,1-dichloroethane were detected in ground-water samples collected by Quanex. One ground-water sample collected by the Michigan Department of Natural Resources also documented the presence of 1,1-dichloroethane in the ground water at a downgradient well. The ground-water monitoring data of concern are presented in Enclosure I.

In addition, you have indicated that the surface impoundments received the K062 treatment plant effluent (i.e. the subject of petition #0633A). Therefore, we believe that the petitioned treatment plant effluent, which has been managed in the on-site surface impoundment, may have also contributed to the ground-water contamination documented at this facility. As such, we feel that it would be inappropriate to grant an exclusion for a waste which has been shown to have the potential to adversely affect ground water.

Based on our consideration of the ground-water monitoring data from this facility, we do not believe that this data adequately supports an exclusion, and so we will recommend to the Assistant Administrator that proposed denial decisions for these petitions be published in the Federal Register.

It is our practice to give petitioners the option of withdrawing their petitions to avoid publication of a negative finding in the Federal Register. If you prefer this option, you must send us a letter within two weeks of the date of receipt of today's correspondence, withdrawing your petitions and indicating that the petitioned wastes are considered hazardous and will be managed as such. This letter should be forwarded to:

Mr. Jim Kent
U.S. Environmental Protection Agency
Office of Solid Waste, Mailcode OS-343
401 M Street, S.W.
Washington, D.C. 20460

If you choose not to withdraw your petitions, we will recommend that a denial notice be published in the Federal Register.

1/ See "Docket Report on Health-based Regulatory Levels and Solubilities Used in the Evaluation of Delisting Petitions," June 8, 1988, located in the RCRA public docket.

If you have any questions regarding our decision, please contact Mr. Scott Maid of my staff at (202) 382-4783.

Sincerely,

Bruce R. Weddle, Director
Permits and State Programs Division

Enclosure

cc: Wayde Hartwick, Region V
Allen Debus, Region V
Bill Miner, Region V
Dave Slayton, MDNR
Jenny Utz, SAIC
Jim Kent, EPA HQ
Scott Maid, EPA HQ

Quanex (#0633b) -- Selected Ground-water Monitoring Data

Parameter	Health-Based Level	Well #	Concentration (mg/l)	Date Sampled
1,1-Dichloro-ethane	0.00038	1*	<0.002 (upgradient)	
		11A	0.006	10-17-86 (Q)
			0.003	5-18-87 (Q)
			0.0099/0.0052/0.0047**	8-18-87 (Q)
			0.0041	11-12-87 (Q)
			***/0.0018/<0.0010**+	2-10-88 (Q)++
		11B	0.006	10-17-86 (Q)
			0.004	3-11-87 (Q)
			0.0021/0.0022/0.0023**	5-18-87 (Q)
			0.0061	8-18-87 (Q)
			0.0053/0.0055/0.0052**	11-12-87 (Q)
			0.0040	2-10-88 (MI)
			0.0035	2-10-88 (Q)
		14A	0.0011	8-18-87 (Q)
			0.0012/0.0014/0.0011**	11-12-87 (Q)
			0.0012	2-10-88 (Q)++
		14B	0.0011	8-18-87 (Q)
Lead	0.05	1*	0.02 (upgradient)	6-20-84
		2	0.06	9-27-84 (Q)
		11A	0.11	8-26-87 (EPA)
		15A	0.22	8-26-87 (EPA)
		16A	0.14	8-26-87 (EPA)
Chromium	0.05	1*	0.005 (upgradient)	3-14-84
		15A	0.090	8-26-87 (EPA)
		16A	0.13	8-26-87 (EPA)
Selenium	0.01	1*	0.0024 (upgradient)	2-10-88 (dissolved)
		2	0.017	9-27-84 (Q)
		12A	0.010/0.011/0.011**	2-10-88 (Q)
Trichloro-ethene	0.005	1*	<0.002 (upgradient)	
		16A	0.0069	8-26-87 (EPA)

(EPA) -- EPA Delisting Spot Check Data
(MI) -- Michigan Department of Natural Resources (MDNR) Data
(Q) -- Quanex Data
* -- Maximum values from Well #1, the upgradient well, shown for comparison.
** -- Values represent results of replicate analyses.
*** -- Sample vial broke during log-in.
+ -- Average of replicate samples exceeds delisting health-based level
++ -- MDNR value <0.0010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 19 1987

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Facilities to be Sampled During the Delisting Spot-Check Mission # 16

FROM: Bruce R. Weddle, Director
Permits and State Programs Division

TO: Basil G. Constantelos
Waste Management Division

Several facilities in Region V have been scheduled for site visits as part of the delisting spot-check program. The purpose of the visit will be to collect and analyze samples of wastes that are generated by these facilities in order to verify the test data reported in individual delisting petitions submitted under Section 260.22 of the RCRA regulations.

The following petitioners in your region have been selected to be sampled. The facilities include Quanex Corporation in South Lyon, Michigan, General Motors Corporation in Flint, Michigan, and Apollo Plating in Roseville, Michigan. We will visit Apollo Plating on August 26, 1987; General Motors Corporation on August 27, 1987; and Quanex Corporation on August 28, 1987.

Table 1 summarizes the areas to be sampled and the parameters to be tested. The sampling team will be led by Mr. Ian Phillips of ERCO/ENSECO, located in Cambridge, Massachusetts (the Agency's sampling and analysis contractor) and Mr. William Sproat of TRI, located in Rockville, Maryland (the Agency's petition review contractor).

We do not intend to give prior notification to any facility of our visit. It is believed a more representative sampling effort will be achieved under these circumstances.

We have conferred with Mr. Bill Miner of Region V Enforcement to verify whether these visits would be appropriate and feasible, and to indicate that representatives from the Regional Offices and State Agencies are welcome to attend these visits.

If you have any questions regarding this visit or the spot-check sampling program, do not hesitate to call Mr. Myles Morse of my staff at FTS 382-4788.

TABLE I

Facilities to be Sampled

	Facility	Areas to be Sampled	Number of Samples	Parameters to be Tested
1.	Quanex Corp. South Lyon, MI (#0633) ID No. MID082767591	Surface Impoundments (2) Groundwater monitoring wells K062 Influent to First Surface Impoundment	30-45 random liquid samples 5-10 samples Time composite (hourly grabs)	Oil and Grease Organics (priority pollutants +) Metals (total digestion) K062 influent will be analyzed as filtered and unfiltered samples.
2.	General Motors Corp. Flint, MI (#0646) ID No. MID005356712	Surface Impoundments (2) Groundwater monitoring wells	30-45 random core samples 5-10 samples	Oil and Grease Organics (priority pollutants +) Metals (total digestion and EP)
3.	Apollo Plating Roseville, MI (#0680) ID No. MID052035425	Filter Press, Hoppers, Drums	5-10 samples	Oil and Grease Organics (priority pollutants +) Metals (total digestion and EP)